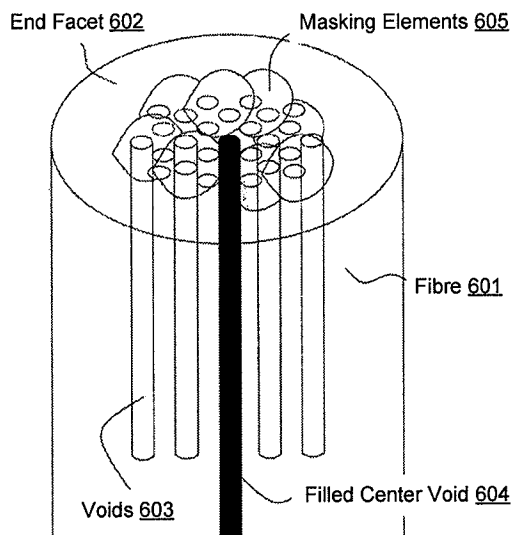


REMARKS/ARGUMENTS

This Amendment is filed in response to a first Official Action on a Request for Continued Examination (RCE) for the above-identified application. Initially, Applicant would like to thank the Examiner for taking the time to conduct a telephone interview with Applicant's undersigned attorney regarding the first Official Action of this RCE. Following a restriction requirement, Claims 1-8 are pending and under consideration. The first Official Action continues to indicate that Claims 7 and 8 are allowable; but also continues to reject the remaining claims under consideration, namely Claims 1-6, under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0111804 to Bjarklev et al., in view of U.S. Patent No. 6,377,591 to Hollister et al.

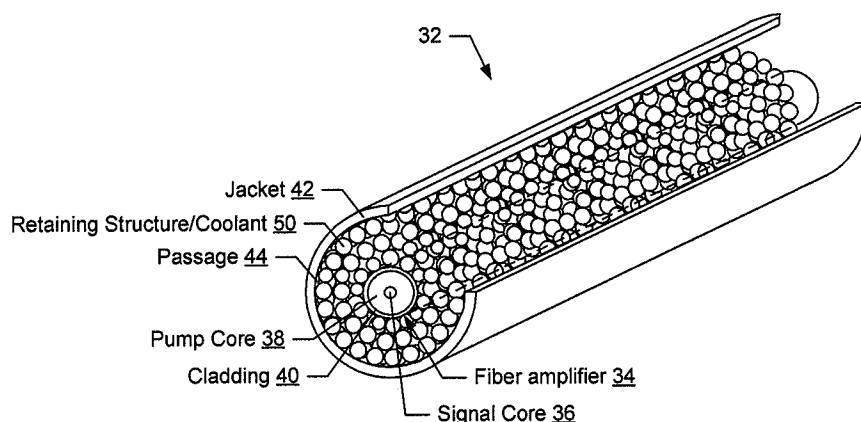
As explained below, Applicant respectfully submits that the claimed invention is patentably distinct from Bjarklev and Hollister, taken individually or in combination. Nonetheless, Applicant has amended various ones of the claims to further clarify the claimed invention. In view of the amendments to the claims and the remarks presented herein, Applicant respectfully requests reconsideration and allowance of all of the pending claims of the present application. In this regard, Applicant has amended allowable dependent Claim 7 into independent form, and accordingly respectfully submits that amended, and now independent Claim 7, and Claim 8 depending therefrom, are in condition for immediate allowance.

Again, and with reference to its FIG. 6 reproduced (and annotated) below, Bjarklev discloses a composite material photonic crystal fiber (spelled "fibre" in Bjarklev) for transmission of light at a predetermined wavelength. As disclosed, the optical fiber includes a core region, an inner cladding region and an outer cladding region. The inner cladding region has spaced apart voids, at least some of which are at least partly filled with a fluid substance to modify a refractive index in the cross-section of the fiber. In this regard, the fluid substance may be introduced by preparing and fixing the fiber ends, identifying the voids to be filled and infusing the fluid therein while masking openings in the remaining voids. By selective heating of parts of the fiber, the location of the fluid substance in the void may be controlled to extend over only a fraction of the length of the void that extends the length of the fiber.



Bjarklev, FIG. 6 (annotated)

According to a one aspect of the claimed invention, as reflected for example by amended independent Claim 1 and with reference to FIG. 4 reproduced (and annotated) below, a system is provided for cooling a fiber amplifier. As recited, the system includes a fiber amplifier assembly with a longitudinally-extending fiber amplifier. The system also recites a longitudinally-extending jacket having a single substantially centrally-located passage within which the fiber amplifier, including the core and the cladding, is disposed such that the fiber amplifier assembly defines a passage between the jacket and the fiber amplifier, including the core and the cladding, for the circulation of coolant therethrough. In this regard, the fiber amplifier assembly further includes a retaining structure disposed within the passage defined by the fiber amplifier assembly for at least partially maintaining spacing between the fiber amplifier and jacket, where the retaining structure and coolant comprise an emulsion of phase change material.



Present Application, FIG. 4 (annotated)

As previously explained, Bjarklev (or Hollister) does not teach or suggest a fiber amplifier assembly including a fiber amplifier (with core and cladding) and a jacket surrounding the fiber amplifier (and its core and cladding) to thereby define a passage for the circulation of coolant, and further including a retaining structure within the passage for at least partially maintaining spacing between the fiber amplifier (and its core and cladding) and the jacket. And for similar reasons, in contrast to amended independent Claim 1, Applicant respectfully submits that Bjarklev (or Hollister) does not teach or suggest a fiber amplifier assembly including a fiber amplifier (with core and cladding) and a longitudinally-extending jacket having a single substantially centrally-located passage within which the fiber amplifier is disposed such that the fiber amplifier assembly defines a passage between the jacket and the fiber amplifier; a retaining structure being within the passage for at least partially maintaining spacing between the fiber amplifier and the jacket. Bjarklev does disclose fibers with cladding and/or core regions including a number of spaced-apart voids, at least some of which are at least partially filled with an active material. Bjarklev does not teach or suggest, however, that any of those voids are defined by a longitudinally-extending jacket within which a fiber amplifier (including its core and cladding) is disposed, similar to the claimed invention. In addition, Bjarklev does not teach or suggest that any of the voids include a retaining structure for at least partially maintaining

Application No.: 10/815,920
Amendment Dated January 15, 2008
Reply to Official Action of October 4, 2007

spacing between the fiber amplifier (and its core and cladding) and the jacket, similar to the assembly of the claimed invention.

For at least the foregoing reasons, Applicant respectfully submits that the rejection of Claims 1-6 as being unpatentable over Bjarklev in view of Hollister is overcome.

Application No.: 10/815,920
Amendment Dated January 15, 2008
Reply to Official Action of October 4, 2007

CONCLUSION

In view of the amendment to the claims and the remarks presented above, Applicant respectfully submits that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicant's undersigned attorney in order to resolve any remaining issues. Applicant further notes that as Applicant's remarks with respect to the rejections are sufficient to overcome these rejections, Applicant's silence as to other assertions in the Official Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserve the right to analyze and dispute such in the future.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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